



Michael F. Easley, Governor

William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director
Division of Water Quality

April 4, 2007

DWQ Project # 2007-0573
Chatham County
Page 1 of 2

Cynthia Crossen
1116 Marshall Road
Pittsboro, NC 27312

Subject Property: **The Glens subdivision and your property immediately downslope**

On-Site Determination for the presence of streams

Dear Ms. Crossen:

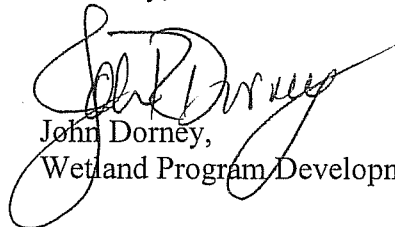
On April 3, 2007, at your request I and Eric Kulz conducted an on-site determination to review three stream channels located on the subject property to determine the presence of streams. The channels are labeled as "A, B and C" on the attached map initialed by me on April 3, 2007.

At your request, I conducted an on-site determination as stated above. During my review, we evaluated stream A using the DWQ Stream Classification Form. We evaluated the stream reach at your property line and calculated the score to be 28.25 points. The form states that if the score is "greater than or equal to 19 points the stream is at least intermittent". During my review, we evaluated stream B using the DWQ Stream Classification Form. We evaluated the stream reach at and above your property line and calculated the score to be 14.75 points. The form states that if the score is "greater than or equal to 19 points the stream is at least intermittent". During my review, we evaluated stream C using the DWQ Stream Classification Form. We evaluated the stream reach at and above your property line and calculated the score to be 16.25 points. The form states that if the score is "greater than or equal to 19 points the stream is at least intermittent". Copies of the stream evaluation forms are attached.

Therefore, the Division of Water Quality (DWQ) has determined that the surface water labeled as "A" on the attached map is an intermittent stream, "B" is an ephemeral stream and "C" is also an ephemeral stream. This on-site determination shall expire five (5) years from the date of this letter.

This letter only addresses the presence of streams and does not approve any activity within the property. Nor does this letter approve any activity within Waters of the United States or Waters of the State. If you have any additional questions or require additional information please call me at (919) 733-9646.

Sincerely,



John Dorney,
Wetland Program Development Unit

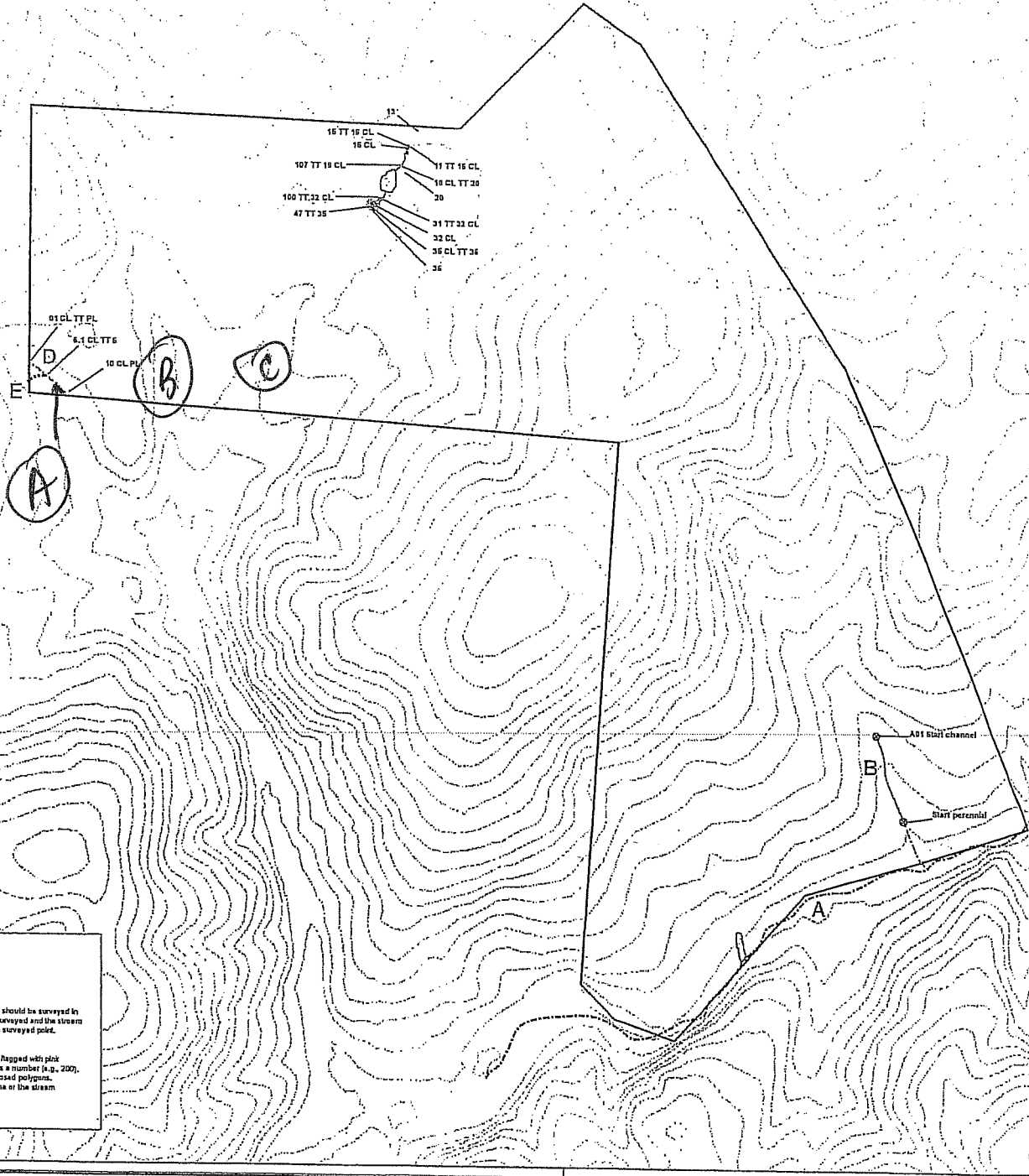
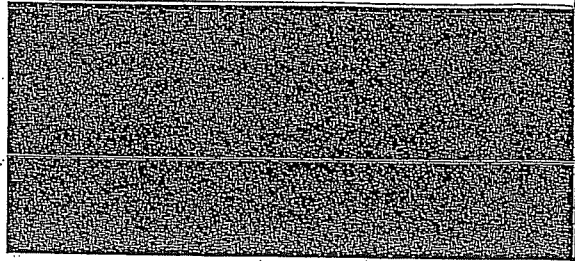
JRD/jrd

Enclosures: Map
Stream evaluation forms

cc: Lauren Cobb, DWQ Raleigh Regional Office
File Copy
Central Files
Keith Megginson, Chatham County Planning Department, 12 East St., Pittsboro, NC
27312
Sean Clark, Soil and Environmental Consultants
Eric Kulz, DWQ
Jean Manuele, US Army Corps of Engineers Raleigh Field Office
Kevin Martin, Soil and Environmental Consultants
Tom Reeder, DWQ

Filename: 20070573Crossen(Chatham)Streamcall

David Gainey - NC SWQP
 April 3, 2007

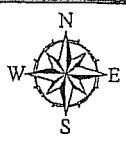


NOTE TO SURVEYOR:
 All stream channels on the property should be surveyed in their entirety. All bends should be surveyed and the stream width either shown or noted at each surveyed point.

Wetlands:
 The wetland boundaries have been flagged with pink SAEC logo flags. Each flag includes a number (e.g., 200). All wetlands should be shown as closed polygons. Some may be tied to the property line or the stream channel as noted on the flag.







Soil & Environmental Consultants, PA
 1018 New Hope Rd - Edinboro, PA 16717
 814.865.5555
 www.secon.com

Project Name: McBane Tract
 Project #: 10296.W1
 Project Manager: David Gainey
 Site Location: Chatham NC
 Source: DOT GIS/ Chatham County
 06/14/06



1" = 300 FT

Legend

-  WATERS OF THE U.S. SUBJECT TO THE PROPOSED CAPE FEAR BUFFERS (intermittent streams; must be confirmed by the USACE and DWR)
-  WATERS OF THE U.S. SUBJECT TO THE PROPOSED CAPE FEAR BUFFERS (perennial streams; must be confirmed by the USACE and DWR)
-  SAEC FLAG DENOTING THE STARTING POINT OF THE CAPE FEAR BUFFERS (must be confirmed by the USACE and DWR)
-  JURISDICTIONAL WETLANDS (must be confirmed by the USACE)
-  TIE TO
-  CHANNEL

North Carolina Division of Water Quality – Stream Identification Form; Version 3.1

Date: 4/3/07	Project: The Greens	Latitude:
Evaluator: Eric Kutz	Site: Stream A	Longitude:
Total Points: 20.25 <i>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30</i>	County: Chatham	Other e.g. Quad Name:

A. Geomorphology (Subtotal = 12)

	Absent	Weak	Moderate	Strong
1 ^a . Continuous bed and bank	0	1	2	3
2. Sinuosity	0	1	2	3
3. In-channel structure: riffle-pool sequence	0	1	2	3
4. Soil texture or stream substrate sorting	0	1	2	3
5. Active/relic floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Braided channel	0	1	2	3
8. Recent alluvial deposits	0	1	2	3
9 ^a Natural levees	0	1	2	3
10. Headcuts	0	0.5	2	3
11. Grade controls	0	0.5	1	1.5
12. Natural valley or drainageway	0	0.5	1	1.5
13. Second or greater order channel on <u>existing</u> USGS or NRCS map or other documented evidence.	No = 0		Yes = 3	

^a Man-made ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 9)

14. Groundwater flow/discharge	0	1	2	3
15. Water in channel and > 48 hrs since rain, <u>or</u> Water in channel -- dry or growing season	0	1	2	3
16. Leaf litter	1.5	1	0.5	0
17. Sediment on plants or debris	0	0.5	1	1.5
18. Organic debris lines or piles (Wrack lines)	0	0.5	1	1.5
19. Hydric soils (redoximorphic features) present?	No = 0		Yes = 1.5	

C. Biology (Subtotal = 2.25)

20 ^b . Fibrous roots in channel	3	2	1	0
21 ^b . Rooted plants in channel	3	2	1	0
22. Crayfish	0.5	0.5	1	1.5
23. Bivalves	0	1	2	3
24. Fish	0	0.5	1	1.5
25. Amphibians	0	0.5	1	1.5
26. Macroinvertebrates (note diversity and abundance)	0	0.5	1	1.5
27. Filamentous algae; periphyton	0	1	2	3
28. Iron oxidizing bacteria/fungus.	0	0.5	1	1.5
29 ^b . Wetland plants in streambed	FAC = 0.5; FACW = 0.75; OBL = 1.5 SAV = 2.0; Other = 0			

^b Items 20 and 21 focus on the presence of upland plants, Item 29 focuses on the presence of aquatic or wetland plants.

Notes: (use back side of this form for additional notes.)

Sketch:

North Carolina Division of Water Quality – Stream Identification Form; Version 3.1

Date: 4/2/07	Project: Thompson Lake	Latitude:
Evaluator: JSD Guice	Site: Step B	Longitude:
Total Points: 24 <i>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30</i>	County: Chatham	Other e.g. Quad Name:

A. Geomorphology (Subtotal = _____)

	Absent	Weak	Moderate	Strong
1 ^a . Continuous bed and bank	0	1	2	3
2. Sinuosity	0	1	2	3
3. In-channel structure: riffle-pool sequence	0	1	2	3
4. Soil texture or stream substrate sorting	0	1	2	3
5. Active/relic floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Braided channel	0	1	2	3
8. Recent alluvial deposits	0	1	2	3
9 ^a Natural levees	0	1	2	3
10. Headcuts	0	1	2	3
11. Grade controls	0	0.5	1	1.5
12. Natural valley or drainageway	0	0.5	1	1.5
13. Second or greater order channel on existing USGS or NRCS map or other documented evidence.	No = 0		Yes = 3	

^a Man-made ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = _____)

14. Groundwater flow/discharge	0	1	2	3
15. Water in channel and > 48 hrs since rain, <u>or</u> Water in channel -- dry or growing season	0	1	2	3
16. Leaf litter	1.5	1	0.5	0
17. Sediment on plants or debris	0	0.5	1	1.5
18. Organic debris lines or piles (Wrack lines)	0	0.5	1	1.5
19. Hydric soils (redoximorphic features) present?	No = 0		Yes = 1.5	

C. Biology (Subtotal = _____)

20 ^b . Fibrous roots in channel	3	2	1	0
21 ^b . Rooted plants in channel	3	2	1	0
22. Crayfish	0	0.5	1	1.5
23. Bivalves	0	1	2	3
24. Fish	0	0.5	1	1.5
25. Amphibians	0	0.5	1	1.5
26. Macroinvertebrates (note diversity and abundance)	0	0.5	1	1.5
27. Filamentous algae; periphyton	0	1	2	3
28. Iron oxidizing bacteria/fungus.	0	1	1	1.5
29 ^b . Wetland plants in streambed	FAC = 0.5; FACW = 0.75; OBL = 1.5 SAV = 2.0; Other = 0			

^b Items 20 and 21 focus on the presence of upland plants, Item 29 focuses on the presence of aquatic or wetland plants.

Notes: (use back side of this form for additional notes.)

Sketch: _____

7.5

4.5

2.25

(margin)

North Carolina Division of Water Quality – Stream Identification Form; Version 3.1

Date: 4/2/07	Project: the Glens	Latitude:
Evaluator: JAD, Eric K	Site: Stream C	Longitude:
Total Points: 16.25 Stream is at least intermittent if ≥ 19 or perennial if ≥ 30	County: Chatham	Other e.g. Quad Name:

A. Geomorphology (Subtotal = _____)

	Absent	Weak	Moderate	Strong
1 ^a . Continuous bed and bank	0	1	2	3
2. Sinuosity	0	1	2	3
3. In-channel structure: riffle-pool sequence	0	1	2	3
4. Soil texture or stream substrate sorting	0	1	2	3
5. Active/relic floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Braided channel	0	1	2	3
8. Recent alluvial deposits	0	1	2	3
9 ^a Natural levees	0	1	2	3
10. Headcuts	0	1	2	3
11. Grade controls	0	0.5	1	1.5
12. Natural valley or drainageway	0	0.5	1	1.5
13. Second or greater order channel on existing USGS or NRCS map or other documented evidence.	No = 0		Yes = 3	

8.5
2.75
16.25

^a Man-made ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = _____)

14. Groundwater flow/discharge	0	1	2	3
15. Water in channel and > 48 hrs since rain, or Water in channel -- dry or growing season	0	1	2	3
16. Leaf litter	1.5	1	0.5	0
17. Sediment on plants or debris	0	0.5	1	1.5
18. Organic debris lines or piles (Wrack lines)	0	0.5	1	1.5
19. Hydric soils (redoximorphic features) present?	No = 0		Yes = 1.5	

3.5

C. Biology (Subtotal = _____)

20 ^b . Fibrous roots in channel	3	2	1	0
21 ^b . Rooted plants in channel	3	2	1	0
22. Crayfish	0	0.5	1	1.5
23. Bivalves	0	1	2	3
24. Fish	0	0.5	1	1.5
25. Amphibians	0	0.5	1	1.5
26. Macroinvertebrates (note diversity and abundance)	0	0.5	1	1.5
27. Filamentous algae; periphyton	0	1	2	3
28. Iron oxidizing bacteria/fungus.	0	0.5	1	1.5
29 ^b . Wetland plants in streambed	FAC = 0.5; FACW = 0.75; OBL = 1.5 SAV = 2.0; Other = 0			

4.25

^b Items 20 and 21 focus on the presence of upland plants, Item 29 focuses on the presence of aquatic or wetland plants.

Notes: (use back side of this form for additional notes.)

Sketch:

amphipods + isopods